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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,028	07/09/2003	Mark E. Addis	EH-10778	1533

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PRATT & WHITNEY  
400 MAIN STREET  
MAIL STOP: 132-13  
EAST HARTFORD, CT 06108

EXAMINER
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PEAVEY, ENOCH E

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/616,028	ADDIS, MARK E.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Enoch E Peavey	3676	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 February 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5,6,8-18 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) 20-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6 and 8-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

I. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

A. Claims 1-3, 5, and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Datta, US No. 2004/0119237 ("Datta"), FIG. 15 in view of FIG. 16.

i. Datta discloses a brush seal (FIG. 16), comprising:

a back plate (to the right of bristles, FIG. 15);

a side plate (to the left of bristles, FIG. 15);

a first set of bristles (right set of bristles, FIG. 16); and

a second set of bristles (left set of bristles, FIG. 16) between the first set of bristles (right set of bristles, FIG. 16) and the side plate (to the left of bristles, FIG. 15);

wherein the second set of bristles (left set of bristles, FIG. 16) have a characteristic, different than the first set of bristles, that reduces windage effects on the first set of bristles (Page 4, paragraph 46, lines 17-20, for providing a damper on an upstream side).

ii. The sets of bristles have non-interfering lay angles (FIG. 17).

iii. The second set of bristles (left set of bristles, FIG. 16) extends at least to the back plate (to the right of bristles, FIG. 15).

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The first and second sets of bristles comprise separate bristle packs (FIG. 16).

iv. The set of non-contacting bristles (left set of bristles, FIG. 16) is more rigid (see thicker diameter shown in FIG. 16 and Page 4, paragraph 47) than the set of contacting bristles (right set of bristles, FIG. 16).

v. The set of non-contacting bristles (left set of bristles, FIG. 16) have a diameter larger than bristles in the set of contacting bristles (see FIG. 16).

vi. The set of contacting bristles and the set of non-contacting bristles comprise separate bristle packs (FIG. 16).

vii. The set of longer bristles (right set of bristles, FIG. 16) adjacent a set of shorter bristles (left set of bristles, FIG. 16), wherein the improvement comprises the shorter bristles (left set of bristles, FIG. 16) located on a high-pressure side (Page 4, paragraph 47) of the longer bristles (right set of bristles, FIG. 16).

viii. It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify FIG. 15 with the bristles of a second embodiment, shown in FIG. 16, in order to utilize the second embodiment as disclosed.

B. Claims 11, 12 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Datta, US No. 2004/0119237 ("Datta"), FIG. 15 in view of FIG. 16, and further in view of Bouchard US No. 5,704,760 ("Bouchard").

i. Datta discloses substantially the same seal as applicant except for the bristles abutting substantially along a majority of the length.

ii. Bouchard discloses such an arrangement in order to provide support.

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iii. It would have been obvious to one of ordinary skill in the art at the time of applicants invention to modify Datta as taught by Bouchard in order to provide further support to the arrangement.

C. Claims 6 and 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Datta and Datta in view of Bouchard et al., US No. 5,704,760 ("Bouchard") and further as a matter of optimization.

i. Datta and Bouchard does not disclose the lay angle being between  $-15$  and  $15$  degrees.

ii. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Datta, making the lay angle between  $-15$  and  $15$  degrees, to find the optimum range in which sealing occurs, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involve only routine skill in the art. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233,235 (CCPA 1955)

### ***Response to Arguments***

II. Regarding Applicant's remarks to the previous office action, Examiner agrees. The previous rejection has been withdrawn. However, the newly cited Datta reference forms the basis for the new rejection.

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III. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

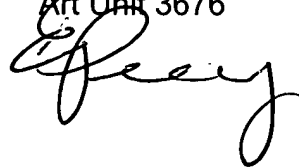
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enoch E Peavey whose telephone number is (571) 272-7061. The examiner can normally be reached on Mon-Fri 8:00 am to 4:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Shackelford can be reached on (571) 272-7049. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Enoch E Peavey  
Primary Examiner  
Art Unit 3676

A handwritten signature in black ink, appearing to read 'E. Peavey', written over the printed name and title.

April 30, 2005